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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/740,073	12/18/2003	Wilhelm Frohs	SGL 03/26	2136

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EXAMINER

MILLER, DANIEL H

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 09/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/740,073

Applicant(s)

FROHS, WILHELM

Examiner

Daniel Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-24 is/are pending in the application.
- 4a) Of the above claim(s) 23-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 9-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 9-22, drawn to a polygranular carbon article, classified in class 408, subclass 427.
- II. Claims 23-24, drawn to a method of making a polygranular carbon article, classified in class 427, subclass 303.

The inventions are distinct, each from the other because of the following reasons:

Inventions of Group I and Group II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the process can make a materially different product since there is no requirement that feedstock be of a highly aromatic residue. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with the attorney of record on July 12th a provisional election was made with traverse to prosecute the invention of Group I, claims 9-22. Affirmation of this election must be made by applicant in replying to this

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Office action. Claims 23-24 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9, 11, 13, 15, and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Correction is required. Claim 9 refers to “commonly coked” mixtures and a “relatively small” proportion of carbon fibers; these terms are undefined leaving the claim vague and indefinite. It is not clear if the language of claim 11 referencing “at most” 4% and 8% refers to one or both numbers, please clarify. Claim 13 has precursor fibers that are provided with sized dictated by the chemical group the molecule is classified under (i.e. polyester, polyurethane, etc). The size is further defined as a size suitable for satisfying objectives of various textile processes. Neither of these limitations is clear as to what is being claimed or how large or small the fibers may or may not be.

In claim 15 it is not clear if these components are added to the coke or if they are merely a size comparison. Claim 15 is dependent upon claim 13 and is also not further limiting for the same reasons. Claim 22 appears to be an improper Markush group please refer to MPEP 2173.05(h).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9, 12-14, 16-19, 21-22 are rejected under 35 U.S.C. 102(b) as being anticipated by (GB 1434824).

Regarding claim 9, the reference teaches an electrode made from carbon fibers mixed with cokable feedstock for manufacturing a calcined coke (column 2 page 1).

Regarding claim 12, and 13 the carbon fibers are 6 mm long (see first sentence of first example).

Regarding claim 14 the reference is silent as to the fibers being oxidized therefore they are considered non-oxidized.

Regarding the limitations of coking in a delayed coker, "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior

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art, the claim is unpatentable even though the prior product was made by a different process.”, (In re Thorpe, 227 USPQ 964,966). Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product (In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983), MPEP 2113)

The coke taught by the reference is calcined, as stated above, satisfying the limitations of claim 16 are fulfilled (column 2 page 1). The process by which the coke is calcined does not provide a structural distinction over the prior art.

The reference further teaches less than 10 percent carbon fibers are employed anticipating claim 17 (see claim 2 of the reference).

Regarding the limitations regarding claim 18, It has been held that where the claimed and prior art products are identical or substantially identical in structure or are produced by identical or a substantially identical processes, a prima facie case of either anticipation or obviousness will be considered to have been established over functional limitations that stem from the claimed structure. *In re Best*, 195 USPQ 430, 433 (CCPA 1977), *In re Spada*, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). The **prima facie** case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed products. *In re Best*, 195 USPQ 430, 433 (CCPA 1977).

Since the structure of the carbon product referred to in the reference is the same or substantially similar to the claimed carbon product it should also have the same properties with respect to its coefficient of thermal expansion, so claim 18 is anticipated.

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Regarding claim 19, the reference teaches a carbonized carbon fiber reinforced coke (see claim 1 of the reference). The reference teaches a carbon composite containing carbon fibers and being carbonized that would comprise over 70% carbon.

The coke of the reference is further graphitized to form an electrode, anticipating both claims 21 and 22 (see page 2 column 2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10 and 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over (GB 1434824) in view of (GB 1548046).

Reference '824 teaches all that is above, including using the coke in the formation of an electrode, but is silent as to the use of needle coke required by claim 10 and 20.

Reference '046 teaches it is advantageous for stronger electrodes to use exclusively needle coke (page 1 column 1).

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It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the coke of '824 into needle coke taught by '046 for use in forming an electrode because it is taught by '824 to use the coke in an electrode and '046 teaches that using needle coke provides improves electrode strength.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over (GB 1434824).

Reference '824 teaches carbon fibers being less than 10%, but is silent as to the carbon fibers being less than 4% or 8% as recited in claim 11.

Less than 10% is considered to overlap the ranges with at most 4% and 8%. However, absent a showing of criticality with respect to the percentage of carbon fibers in the coke, it would have been obvious to a person of ordinary skill in the art at the time of the invention to optimize the percentage of carbon fibers through routine experimentation. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Conclusion

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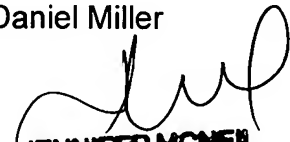
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Miller whose telephone number is (571) 272-1534. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel Miller



JENNIFER MCNEIL
PRIMARY EXAMINER